

What is claimed is:

1. A halogen free flame retardant cable comprising at least one insulated wire, an inner sheath covering the at least one insulated wire and an outer sheath covering the inner sheath,

wherein the inner sheath includes a polyolefin based resin or a resin composition mainly composed of the polyolefin based resin; the outer sheath includes a crosslinked resin mixture of a thermoplastic polyurethane elastomer and a thermoplastic polyester elastomer or a crosslinked resin composition mainly composed of the mixture; and the outer sheath further includes at least one flame retardant selected from the group consisting of metal hydroxides and flame retardants containing nitrogen in a molecule in an amount of 3 ~ 35 parts by weight per 100 parts by weight of the resin mixture.

2. The halogen free flame retardant cable according to claim 1, wherein said at least one insulated wire is fabricated by stranding two or more insulated wires.

3. The halogen free flame retardant cable according to claim 1 or 2, wherein the inner sheath further includes a flame retardant composed of aluminum hydroxide and/or magnesium hydroxide in an amount of 30 ~ 120 parts by weight

per 100 parts by weight of the polyolefin based resin.

4. The halogen free flame retardant cable according to any one of claims 1 to 3, wherein the inner sheath includes
5 a flame retardant in an amount of 50 ~ 100 parts by weight per 100 parts by weight of the polyolefin based resin.

5. The halogen free flame retardant cable according to any one of claims 1 to 4, wherein the flame retardant
10 included in the inner sheath is aluminum hydroxide.

6. The halogen free flame retardant cable according to any one of claims 1 to 5, wherein the flame retardant included in the inner sheath has an average particle
15 diameter of 0.1 ~ 0.9 μm .

7. The halogen free flame retardant cable according to any one of claims 1 to 6, wherein the polyolefin based resin included in the inner sheath is an ethylene-vinyl acetate
20 copolymer.

8. The halogen free flame retardant cable according to any one of claims 1 to 7, wherein the polyolefin based resin included in the inner sheath contains an acid-modified
25 polymer.

9. The halogen free flame retardant cable according to any one of claims 1 to 8, wherein the inner sheath further includes a silane coupling agent in an amount of 0.1 ~ 3 parts by weight per 100 parts by weight of the polyolefin based resin.

10. The halogen free flame retardant cable according to any one of claims 1 to 9, wherein the weight ratio of the thermoplastic polyurethane elastomer to the thermoplastic polyester elastomer included in the outer sheath ranges from 20/80 to 80/20.

11. The halogen free flame retardant cable according to any one of claims 1 to 10, wherein at least the outer sheath is cross-linked by exposing an ionizing radiation.

12. The halogen free flame retardant cable according to any one of claims 1 to 11, wherein the amount of the flame retardant included in the outer sheath ranges from 5 to 22 parts by weight per 100 parts by weight of the resin mixture.

13. The halogen free flame retardant cable according to any one of claims 1 to 12, wherein the flame retardant included in the outer sheath is selected from the group consisting of magnesium hydroxide and melamine cyanurate.